

Roland
WE DESIGN THE FUTURE



ROLAND KEYBOARDS

Electronic Musical Instruments

VOL.3

MC-4

MICROCOMPOSER

A new synthesizer controller to expand the range of any synthesizer and take the work out of complex composition.

- The MC-4 is a digital sequencer designed to accept numerical keyboard inputs, CV inputs from instrument keyboards and real time inputs.
- Real time input is possible in CV-1+GATE and GATE REWRITE in the same manner as with the CSQ-100 and CSQ-600. Real time can be performed while listening to sounds previously inputted on channels.
- The output has four channels to allow simultaneous control of four synthesizers.
- Each channel has two independent CV outputs. These CV outputs are available for control of pitch and level, or pitch and tone. Also when the note arrangement is the same, two-voice chords can be performed on one channel by controlling the two VCOs.
- Each channel is equipped with an MPX output (ON/OFF output of 0 - 12V) for ON/OFF control of portamento, vibrato, etc.
- A number of editing functions such as copy, insert, delete, forward step and back step are provided for easier data inputting and modification.
- Repeat commands can be inputted on each channel to specify repeating times. The repeat command can be used twice for easier inputting and memory economy.
- CV data and others (i.e. shifted step time, shifted gate time) can be transposed on each channel. Also data can be copied with transposition. These functions are very helpful to input arpeggio and base patterns.
- Step and gate time data can be preset. Once frequently-used step and gate time values are preset, data input can be completed by simply modifying other values.
- Tempo (♩ =) can be inputted by entering numbers. The inputted tempo is variable by the Tempo control in a range of -50% through +100% (maximum).
- Total playing time can be displayed. Tempo can be accurately set to any determined playing time by fine-adjusting the Tempo control while monitoring the playing time value.
- The internal memory of MC-4B is 48K byte. The MC-4A (16K byte) is expandable to 48K byte (maximum) with an optional OM-4 (32K byte RAM Board). The 16K byte memory can memorize up to 3,750 notes depending on step time, and the Measure End number. This is expanded up to 11,500 notes at 48K byte.
- Remaining memory capacity can be indicated on the display as a percentage.
- Data can be stored on cassette tapes. When data is stored on a cassette tape, a data number is assigned, and the data number is inputted during loading, searched and read. (When data number is not inputted during loading, the cued data is inputted.)
- Input and output synchronization jacks (FSK) allow tape synchronization with a multi-track tape recorder. Also synchronization input and output (pulses) can be used for parallel playing of the MC-4.

REAR PANEL



- In addition to the input and output synchronization jacks, there are Sync IN/OUT DIN jacks. When a rhythm machine (equipped with a Roland standard DIN jack) is connected, playing can be performed synchronous with rhythm. Furthermore, these DIN jacks can be used for multiple use of several MC-4's.
- The Tempo CV input controls tempo by external voltage. Tempo can also be changed via CV data by connecting a CV input with any CV output. With this connection, total playing time can be calculated by the controlled tempo.
- The EXT START and EXT STOP/CONT PLAY jacks allow start/stop control of the MC-4 by a pedal switch or external voltage.

SPECIFICATIONS

• Memory Capacity: 3,750 notes (16 K byte version), 11,500 notes (48 K byte version) • Output: 4 channels, Each channel: CV-1 (0V - 10.42V, 0 - 125 steps, 83.3mV/step), CV-2 (0V - 10.42V, 0 - 125 steps, 83.3mV/step), Gate (off = 0V, on = 12V), MPX (off = 0V, on = 12V) • Ext Input: CV (0V - 10.42V), Gate (threshold +2.5V), Calibration Knob • Tempo CV Input: CV (0V - 10.42V) • Ext Sync: Input (threshold +2.5V), Output (0V - 5V) • Total Tune Knob: (±10 cents) • CMT/Sync: Input, Output • Sync (DIN): DIN socket, Selector (in/out) • Ext Control: Start, Stop • Tempo Knob: (-50% - +100%) • Cycle: ON/OFF Switch • Sync: Selector (DIN/INT/EXT, TAPE) • Mode: Mode change switch (EDIT/PLAY/CMT) • Keys: Numeric (0 - 9), Enter (Start), Meas End (Stop/Cont), Back step (total time), (-), Forward step (step error), (+), Shift, Insert, Delete, Copy (shift copy = transpose), Repeat, Cursor <-, Cursor > • Shift Map: 7: CV1 + GATE, 8: GATE REWRITE, 9: TUNE, 4: CV2, 5: MPX, 1: CV1, 2: STEP TIME, 3: GATE TIME, 0: Available Memory (%) • Edit mode: Time base (1 - 240), Tempo (1 - 240), Channel (1 - 4), Measure (1 - 61890), Step (1 - 61890), Data - Enter [data entry], Data - Meas End [data entry with meas end], Keybo [data entry], Shift Meas End [only meas end entry], Back [step], Fwd [forward step], Shift Numeric [1: CV-1, 2: step time, 3: gate time, 4: CV-2, 5: MPX], Copy [copy], Shift Copy [transpose], Ins [insert a set of data], Del [delete a set of data], Rep [repeat begin], Rep-Rep-times [repeat end with times] • Play mode: Enter [start], Meas End [stop & continue play], Back [total time], Fwd [step errors] • CMT mode: 7 - Numeric - Enter [load], 8 - Numeric - Enter [save], 9 - Numeric - Enter [verify] • Real time loading (in edit mode): Shift 7 - n - Meas End [CV-1 + Gate], Shift 8 - n - Meas End [gate rewritten], n: metronome in each measure • Others (in Edit mode & Play mode): Shift 9 [tuning synth's], Shift 0 [memory remainder %] • Dimension: 471(W) x 124(H) x 348(D)mm (18.6" x 13.7" x 4.9") • Weight: 6.3Kg (13.86 lbs.) • MC-4 accessory: MTR-100 connector cable

DIGITAL CASSETTE RECORDER MTR-100



Roland's new Digital Data Cassette terminal has the following added performance features for greater convenience and versatility.

- Memory Capacity: 250k Byte
- Dimensions: 218(W) x 118(H) x 348(D)mm (8.6" x 4.65" x 13.7")
- Weight: 3.4kg (7.48 lbs.)

Roland

**MicroComposer
MC-4**



- MC-4 is available in two types: A type and B type.

MC-4A 16k Byte
The MTR-100 digital cassette cannot be connected to the MC-4A directly.
Use of the optional OM-4 (RAM kit) allows connection of MTR-100 digital cassette to the MC-4A.

MC-4B 48k Byte (with OM-4 and built-in cassette interface)
The MTR-100 digital cassette can be connected to the MC-4B.

- Option

OM-4 32k Byte RAM kit



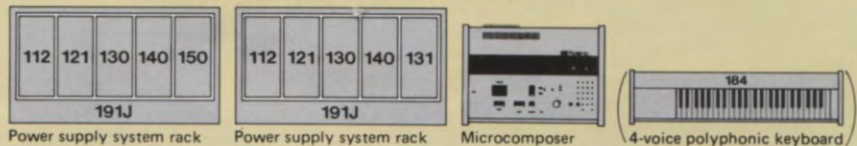
MC-4+MTR-100

MC-4 and SYSTEM-100M combinations

- It is extremely convenient to use the MC-4 and Keyboard 181 or 184 together.
- We recommend use of PCS-10 and PCS-14 patch cords.

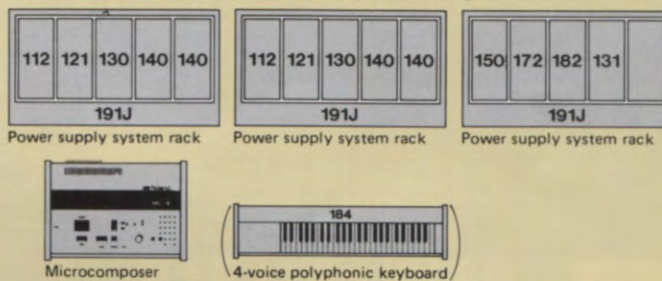
SYSTEM 1: Basic combination

- This arrangement provides a four-voice polyphonic effect.



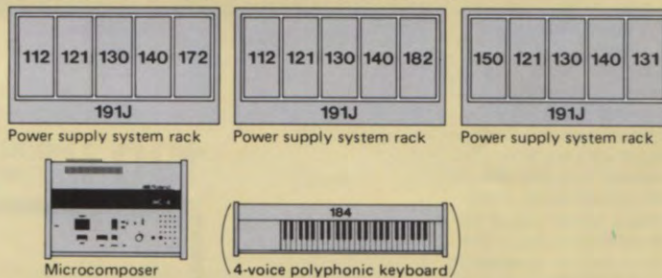
SYSTEM 2: With envelope generators for more delicate nuances

- This arrangement offers a number of additional features, such as audio delay, phase shifting, gate delay and analog sequencing.



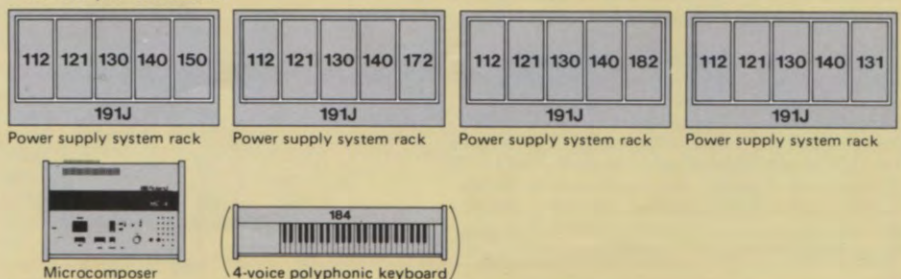
SYSTEM 3: Allows MC-4's MPX to be used for percussion effect (4-Voice section plus 2 percussion sounds)

- A 4-channel (or larger) audio mixer is required.



SYSTEM 4: Lets you synthesize a symphony

- The MC-4's CV-2 provides dynamic control, making this arrangement suitable for live performances.



SYSTEM-100M

SYSTEM SYNTHESIZERS



This voltage controlled synthesizer is a musical instrument which contains elements that can be connected together, much like building blocks, to build or create almost any sound imaginable. As with most professional systems, the System 100M puts these synthesizer elements into separate modules so that you can build a system which meets your own particular needs.

All major control and audio inputs for each module have their own input mixers which greatly simplifies patches where multiple inputs are needed. This also means that all patch cord signal levels are high for a much better signal-to-noise ratio. All module inputs and outputs are compatible so that any output may be connected with any other and with most equipment found in the recording studio. Keyboard control voltage, gate and trigger are internally connected so that normally patch cords are not needed for these. All modules are the same size and weight: 104(W) x 230(H) x 200(D)mm, 1.6kg.

A Flexible System for Today's Creative Musician
The System 100M is sold as separate units so that you can build up a system to match your own particular needs. The keyboards include 6-conductor cords for power, internal CV, GATE, and TRIGGER connections to the system. The racks (190 and 191) contain the power supply, power switch, and voltage regulators for the modules and keyboard. Module mounting screws and a patch cord set (PCS-2) are included.

SYSTEM RACKS

190 3 MODULE SYSTEM RACK



Rear panel: 8-pin DIN connectors to supply power to modules; 6-pin DIN plug for expanding the system so that one keyboard may be used to control any number of additional rack systems. Available for 100V, 117V, 220V, 240V, @50/60Hz. Simulated wood ends.

• Dimensions: 349(W) x 314(H) x 192(D)mm • Weight: 5.6kg (without modules): 190B Base for 190 is also available.

191J 5 MODULE SYSTEM RACK



This handsome sturdy rack is capable of holding five modules and is equipped with 33 jacks for easy, fast patching. Except for its added width and weight, this rack is exactly the same as the Model 190.

• Dimensions: 558(W) x 314(H) x 192(D)mm • Weight: 6.9kg (without modules).

KEYBOARD CONTROLLERS

184

4 CV COMPUPHONIC KEYBOARD CONTROLLER

Polyphonic keyboard with independent 4 CV and 4 GATE control.

By adding the 184 to the SYSTEM 100M or SYSTEM 700 system synthesizer, polyphonic music with an extremely rich timber can be easily reproduced. The 184 is a 4-voice keyboard controller with 4 CV's, 4 GATES, and 49 keys (C-scale). It also has an auto arpeggio function and selectable assign mode (monophonic/polyphonic). Parallel connection is easy with standard jacks and mini-jacks on the rear panel. A convenient bender lever is provided for easy control of polyphonic portamento.

- Keyboard: 49 keys (C-scale)
- Dimensions: 938(W) x 108(H) x 263(D)mm (36.9" x 4.3" x 10.4")
- Weight: 8.5kg (18.7 lbs.)



181

49-KEY KEYBOARD CONTROLLER

An expanded version of the 180. Added features include a portamento on/off switch and a bender lever. Also included are a mini-jack and a standard phone jack output so that the bender may be used for controlling other functions.

- Dimensions: 846(W) x 100(H) x 236(D)mm
- Weight: 6.5kg.



180

32-KEY KEYBOARD CONTROLLER

A 1V/oct. low key priority keyboard with three sets of outputs for easing the compatibility with other synthesizer systems: Mini-jacks, standard phone jacks and a 6-pin DIN plug. Outputs include control voltage, gate, and trigger. The control panel on the left contains a TUNING control, a three position TRANSPOSE switch, and a PORTAMENTO control. The ends are simulated wood to match System 100M racks.

- Dimensions: 589(W) x 100(H) x 236(D)mm
- Weight: 4.7kg

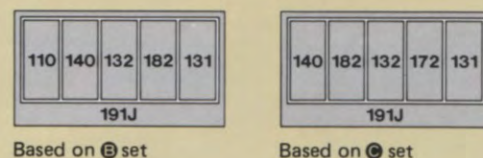


Typical module combinations

Basic combinations



Expanded combinations



SYNTHESIZER MODULES



110 VCO-VCF-VCA

BASIC SYNTHESIZER MODULE

This module contains the three main synthesizer elements, and when combined with a Model 140 module, provides all that is needed for the production of one synthesizer voice. This arrangement is particularly convenient in a computer controlled system where the generation of each voice in a composition can be assigned primarily to one module. The connections for signal flow from the VCO, through the VCF to the VCA are made internally to save patching time. Another internal connection allows a single envelope generator input to control both the VCF and VCA. All internal connections are made with switching jacks so that they can be broken, if desired.

- VCO • Output: 10Vp-p, 1k Ω • Input: 50k Ω
- Frequency: 1Hz-30kHz • Control Sens: 1V/oct.
- VCF • Cutoff Frequency: 25Hz-20kHz • Slope: -24dB/oct. • Control Sens: 1V/oct. • VCA
- Nominal gain: 1, Linear • Frequency Response: 3Hz-50kHz S/N: 70dB • High Output: 15Vp-p Max, 1k Ω • Low Output: 1.5Vp-p Max, 3.3k Ω



112 2VCO

DUAL VCO MODULE

This module consists of two independent VCO's in one package with expanded features. Both include three separate variable control inputs, strong and weak sync mode for phase locking, and simultaneous manual and external control of pulse width.

- VCO • Output: 10Vp-p, 1k Ω • Input: 50k Ω
- Frequency: 1Hz-30kHz • Control Sens: 1V/oct.



121 2VCF

DUAL VCF MODULE

Two independent voltage controlled low pass filters in one package. Each VCF includes the added feature of a built-in fixed high pass filter with a switch for turning the high pass function off or selecting one of three cutoff points. Each VCF also includes three audio and three control inputs, and LED's for following signal flow. The green LED's light when a signal appears at the outputs, the red LED's light, for overdrive (distort) condition.

- VCF • Cutoff Frequency: 25Hz-20kHz • Slope: -24dB/oct. • Freq. Response: 10Hz-20kHz • Control Sens: 1V/oct. • Fixed High Pass Filter Cutoff Points: off, 1kHz, 2kHz 5kHz



130 2VCA

DUAL VCA MODULE

Two independent VCA's in one package, each with a selector switch for linear or exponential control response; also three audio three control inputs.

- VCA • Nominal Gain: 1 • Frequency Response: 3Hz-50kHz; S/N: 70dB • High Output: 15Vp-p Max, 1k Ω • Low Output: 1.5Vp-p Max, 3.3k Ω • Linear Response: 10%/1V • Exponential Response: 10dB/1V



131 OUTPUT MIXER

A four channel stereo mixer with panning on each channel. This mixer can be used in four track recording or to coordinate multiple synthesizer outputs. Includes stereo headphone output with completely independent level control. Convenient tuning oscillator with separate level control: 220Hz, 440Hz, 880 Hz. Mixer program outputs include left and right stereo outputs and separate mono output. Program outputs include both miniature Jacks and 1/4" phone jacks for convenient connection to other parts of the synthesizer or to other studio equipment. Each program output also includes a red LED to show overload or distort condition.

- Jacks: 4 Signal Input (15Vp-p, Impedance: Greater than 50k Ω) Output (Stereo, Monaural, 0.775V rms. Impedance less than 1k Ω) • Frequency Response: 3Hz x 4kHz • S/N: Better than 75dB • Crosstalk: Better than 75dB



132 DUAL CV/AUDIO MIXER & VOLTAGE PROCESSOR

Each mixer is a four channel mixer with simultaneous inverted and non-inverted outputs. They can be used for summing control voltages and/or for mixing audio signals. Both include built-in positive and negative voltage sources. A red LED shows overload condition.

The module also includes a separate variable positive voltage source and a separate variable negative voltage source.

- Jacks 4 Signal Input (Max. ± 10 Vp-p, Impedance Better than 50k Ω) 2 Output (Max. ± 10 Vp-p, Impedance 1k Ω) • Frequency Response: DC-40kHz • S/N: Better than 90dB • Voltage Sources: 2 Level Volume: (0-+10V, 0-10V) • 2 Output (Impedance 1k Ω)



140 2ENV-LFO

LFO + DUAL ENVELOPE GENERATOR MODULE

This module and the Model 110 module provide the minimum basic elements necessary to produce a single synthesizer voice. Or, used with Models 112, 121, and 130, provides enough elements for two voices.

ADSR'S: Can be triggered from internal gate or gate + trigger, from an external gate, or manually with the front panel pushbutton. Both envelope generators provide inverted and normal outputs.

LFO: Voltage controlled low frequency oscillator with built-in delay for delayed vibrato effects.

KYBD TRIG allows phase locking of LFO output to keyboard trigger pulse.

- ENV GEN • Attack: 1.5ms-7.5s • Decay: 4ms-15s
- Sustain: 0-±10V • Release: 4ms-15s • Out: 1kΩ
- Gate/Trig Input: 50kΩ, 3V Min. • LFO • Frequency: 0.05Hz-30Hz • Control Sens: 1V/oct.
- Output 10Vp-p, 1kΩ • Delay Time: 0-7s



150 RING-NOISE S/H LFO

RING MODULATOR/NOISE GENERATOR/SAMPLE & HOLD/LFO

Ring Modulator: The most common function of the ring modulator is to combine two VCO outputs to produce metallic clanging sounds. **Sample & Hold:** The sample and hold can be used for sampling an input waveform for producing control voltage patterns based on that waveform. The musical result is patterns of notes such as arpeggios, random notes, etc.

Noise Generator: White and pink noise for sound effects and non-pitched musical instrument sounds.

- Ring • Frequency: 20Hz-20kHz • Output: 1kΩ
- Input: 50kΩ, X + Y = 20Vp-p • Input Rejection: 60dB • S/H • Clock: 0.2Hz-25Hz • S/H Out: 0-10 Vp-p Max, 1kΩ • Signal Input: 10Vp-p Max, 50kΩ
- Noise • White/Pink: 12Vp-p, 1kΩ • LFO • Frequency: 0.05Hz-30Hz • Control Sens: 1V/oct.
- Output: 10Vp-p, 1kΩ • Delay Time: 0-7s



172 PHASE SHIFTER/AUDIO DELAY/GATE DELAY

The phase shifter and audio delay can be used for producing spatial effects. Both include convenient effect ON/OFF switches. Both can be controlled from an external control voltage source so that two units may be used together for stereo effects, or may be used as a part of the sound synthesis process itself. The built-in control LFO has both normal and inverted outputs. The gate delay can be used where it is desirable to provide a delayed output from a pulse source, or it can be used as a pulse shaper. The gate delay also has a built-in high gain amplifier with a **THRESHOLD** control so that low level pulses recorded on tape can be amplified and shaped into a form which will trigger synthesizer functions.



182 ANALOG SEQUENCER

A two channel, eight step analog sequencer for producing control voltage changes in sequence to produce such things as melodic patterns, patterned tone color changes, etc. In series mode, voltage sequences of up to 16 steps may be programmed. In parallel mode, two independent voltages can be preset for each of up to eight steps, or one of the channel outputs can be used to control the sequencer clock so that the timing between each step in the sequence can be different. Several sequencers may be used in series for longer sequences, or in parallel for more channels of simultaneous output.

- Tempo Control: 7sec-3ms (0.14Hz-33Hz) • Portamento: 0-10sec Channel 1 only • Gate Time: 10%-90% • CV Out: 0-3V/0-10V • Gate Out: +14V, Impedance less than 2kΩ • Tempo CV Input: 0-10V, Impedance 120kΩ • Trig. In: +5-15V more than 1ms, Impedance 50kΩ • End Pulse Out: +14V 10ms, Impedance less than 3.3kΩ



OP-8

CV INTERFACE

The OP-8 is a new interface designed for the MC-4 microcomposer to automatically control polyphonic synthesizers such as the JUPITER-8 and JUNO-60 with built-in DCB (Digital Communication Bus).

- The JUPITER-8 (8-voice) and JUNO-60 (6-voice) are programmable polyphonic synthesizers. Their ability to memorize tones is very attractive to both live performers and studio musicians who use system synthesizers with microcomposers.
- The JUPITER-8 and JUNO-60 are designed differently and are connected to the OP-8 in different ways. Such connections will be explained below with illustrations.

SPECIFICATIONS

- EXT INPUT: CV (0 – 15V output: up to 112 corresponding to 9.33V.), GATE (OFF = 0V, ON = 2.4 – 15V active high), VCA CV (0 – 10V typical 50 corresponding to 4.167V.), VCF CV (same as above.)
- PATCH SELECT: CV DATA (1 – 32 JUPITER-8 accepts 1 to B), MPX (0V: PATCH SELECT DISABLE, 2.4 – 15V: PATCH SELECT ENABLE)
- MULTIPLE JACKS
- TRANSPOSE SWITCH: oct down/normal/oct up
- VCF GAIN KNOB
- VCA GAIN KNOB
- Connector: DCB cable, Flat cable (for JUPITER-8)
- Dimensions: 218(W) x 124(H) x 348(D)mm (8.58" x 4.88" x 13.7")
- Weight: 3.2 kg (7.04 lbs.)
- Accessory: DCB cable (H-165) x 1



REAR PANEL

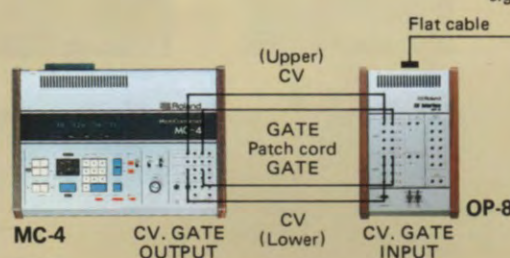


How to Connect the OP-8 and JUPITER-8

- The OC-8 option connector must be used to connect the OP-8 to the JUPITER-8.
- Connection of the OP-8 with the JUPITER-8 provides a variety of functions.
- The OP-8 has 8 CV input jacks and 8 Gate input jacks to receive outputs from the microcomposer. Jacks 1 through 4 are used to control the upper manual of the JUPITER-8. Jacks 5 through 8 are for the lower. Different functions are available, depending on the setting of JUPITER-8 key mode. Data corresponding to 61 keys can be inputted to both the upper and lower.
- In addition to interval control, the OP-8 is capable of controlling the JUPITER-8's VCF. It applies a voltage ranging from 0 to 10V to the CV jack to control the JUPITER-8's VCF cutoff frequency. The OP-8 can also control the VCA of the JUPITER-8 to produce a variety of expressions.

Connection of the MC-4 and JUPITER-8

An OP-8 and OC-8 must be used to connect the MC-4 and JUPITER-8.



OC-8 Option Connector Kit

The JUPITER-8 must be equipped with a DCB system that controls the exchange of CV and GATE information using digital signals.

DCB = Digital Communication Bus

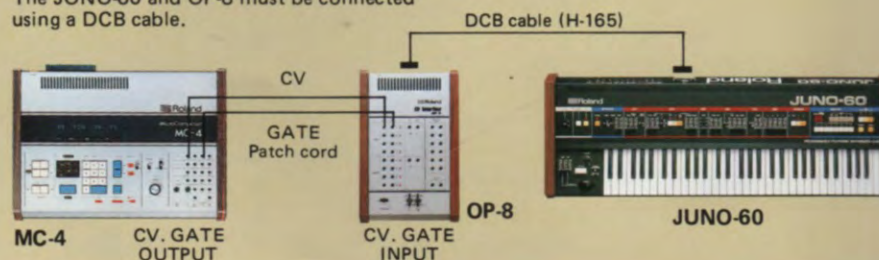


Connection of the OP-8 and JUNO-60

- Use a H165 DCB cable to connect the DCB connector on the rear panel of the JUNO-60 with the OP-8 connector. Any CV and GATE jacks, 1 to 8, can be used to receive data from the MC-4 microcomposer. However, only six channels can be used since the JUNO-60 has only six voices.
- When the OP-8 is connected with the JUNO-60, the OP-8's CV jack, GATE input jack and transpose switch are operable. The Transpose switch lets you transpose any key one octave to produce a variety of sounds.

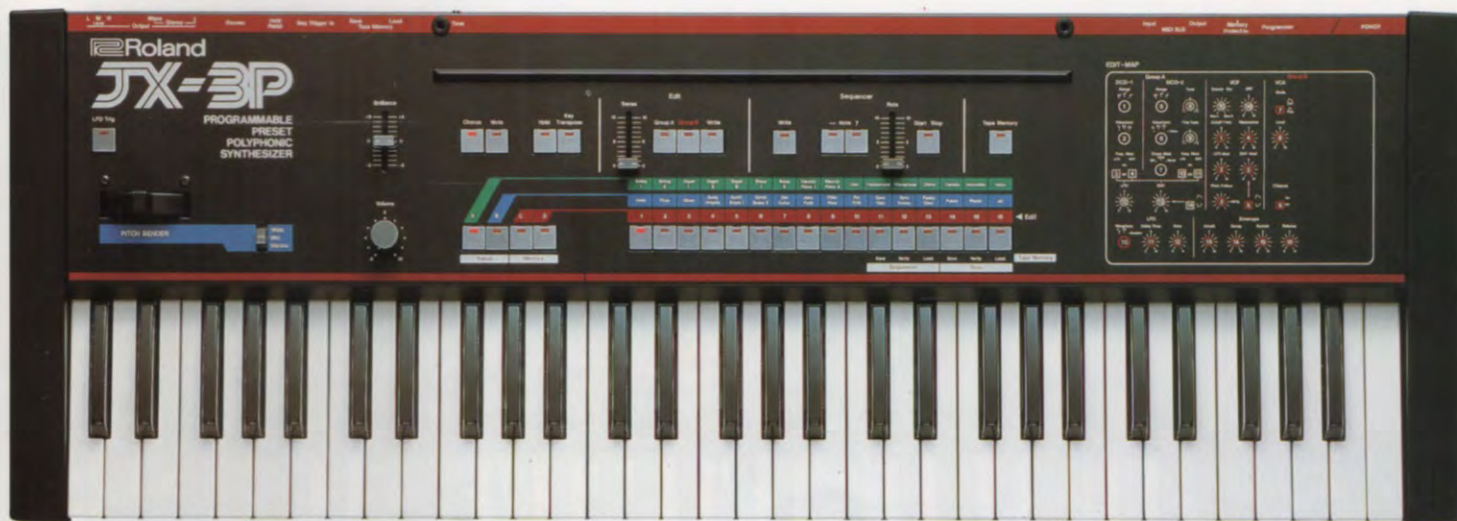
Connecting the MC-4 and JUNO-60

The JUNO-60 and OP-8 must be connected using a DCB cable.



JX-3P

PROGRAMMABLE/PRESET/POLYPHONIC SYNTHESIZER



- To generate a wide variety of sounds, the JX-3P incorporates digitally-controlled oscillators (DCO) that produce extremely stable pitches. The dual DCO for the 6-voice, 12 DCO allows the JX-3P to generate impressively high-density and lifelike sounds, including synchro-tones and metallic tones.
- The JX-3P can generate up to 32 different sounds by simply pressing the appropriate pre-set key. An optional PG-200 Programmer creates an additional set of 32 new sounds, and allows the original 32 preset sounds to be easily modified.
- The JX-3P also incorporates a polyphonic sequencer capable of performing up to 128 programmed steps automatically. Any of the sounds and sequence data you have created can be recorded by simply connecting the JX-3P to a conventional tape recorder.
- Edit Function to change the tone of up to 64 notes.
- Oversized pitch bender for easier control.
- Stereo Chorus and Key Transpose functions.
- Memory data backup batteries.
- MIDI (Musical Instrument Digital Interface) BUS for connecting synthesizers or sequencers of the same standard without using a converter.

SPECIFICATIONS

• Keyboard: 61 keys, 5 octaves, C scale • Pre-set Section: Bank A (1 to 16); String I, String II, Organ I, Organ II, Organ III, Brass I, Brass II, Electric Piano I, Electric Piano II, Clavi, Harpsichord, Vibraphone, Chime, Celesta, Accordion, Voice/Bank B (1 to 16); Violin, Flute, Oboe, Song Whistle, Synth Brass I, Synth Brass II, Dist Guitar, Juicy Funk, Filter Flow, Fat Fifth, Sync Wah, Sync Sweep, Funky Clavi, Pulsar, Planet, Jet • Memory Section: 32 Patch Programmable and battery Back-up, Bank C (1 to 16), Bank D (1 to 16) • Edit Section: 32 Elements, Group A (1 to 16), Group B (1 to 16), Sens knob, Edit Write button • Performance Control Section: Volume knob, Brilliance knob, Mute button & indicator, LFO Trigger button & indicator, Bender lever, Bend Range switch (Wide, Mid, Narrow) • Chorus: Chorus button & indicator • Hold: Hold button & indicator • Key Transpose: Key Transpose button & indicator • Sequencer: 6 Voice Polyphonic maximum capacity of 128 steps and battery back-up, Sequencer Write button & indicator, Rest button & indicator, Tie button & indicator, Start/Stop button & indicator, Rate knob • Tape Memory: Sequencer (Save, Verify, Load), Tone color (Save, Verify, Load) • Power: POWER switch • Rear Panel: Output jacks (Mono, Stereo), Output Level (L: -30dBm, M: -15dBm, H: 0dBm), Phones jack (Stereo), Hold Pedal jack (DP-2), Sequencer Trigger In jack, Tape Memory Save jack, Tape Memory Load jack, Programmer In (DIN 6P), MIDI BUS Input (DIN 5P), MIDI BUS Output (DIN 5P) • Dimensions: 912(W) x 115(H) x 325(D)mm (35.9" x 4.53" x 12.8") • Weight: 9.8kg (21.6 lbs.) • Accessories: Music Rack, 2.5m connection cable (x 2)

PG-200 PROGRAMMER

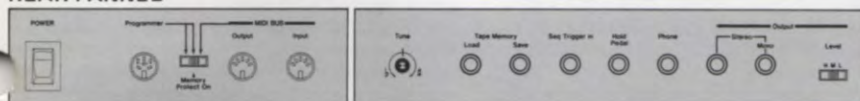


- The PG-200 can set either a wide range of sounds or modify preset sounds using a variety of controls including a cross-modulator. In addition to its programming functions, the PG-200 has a number of convenient editing functions.

SPECIFICATIONS

• DCO-1 • DCO-2 • VCF • VCA • Chorus • LFO • Envelope • Function • Connector (6P DIN) • Dimensions: 244(W) x 45(H) x 172(D)mm (9.6" x 1.8" x 6.8") • Weight: 1.4kg (3.08 lbs.) • Accessory: 6P DIN Cable

REAR PANEL



JUPITER-8

8-VOICE POLYPHONIC SYNTHESIZER



The Roland Jupiter-8 has the sound sophistication of a modular synthesizer in the most practical, performance-oriented polyphonic synthesizer ever conceived. The JP-8 is an 8-voice, 16-oscillator polyphonic synthesizer with 64 user-programmable memories and an advanced 5-octave keyboard which may be split into two polyphonic synthesizers with different patches, used in Dual mode for layering two patches for each key, or played as a whole with up to 8 fully independent notes from the same patch.

Designed for Performance:

The key to the JP-8's unsurpassed performance ability is an advanced computer-assigned keyboard which allows more flexibility and control than ever before.

The 5-octave keyboard has 61 keys, C to C, that can be grouped into three different Key Modes: Whole, Dual and Split. In the Whole Mode, it operates as a single keyboard with up to 8 totally independent notes from the same patch. Select the Dual Mode to lay two voices with their own patches from any four keys for thick "section" sounds or sounds never before possible.

Split Mode divides the Keyboard into two polyphonic synthesizers (three octaves at the upper end, two at the lower end), each with its own programmed sound and set of 4 independent voices. The Jupiter-8 programmer even allows the programming of 8 different Patch Preset pairs so that a split keyboard with predetermined programs for each end may be called up at the touch of a button. This unique Split feature with its Patch Preset programs lets the JP-8 fulfill the function of many pairs of separate yet fully flexible instruments from one keyboard — a distinct advantage in flexibility, portability and economy.

The Jupiter-8 keyboard computer also provides a unique Arpeggio section, allowing the sequencing of automatic arpeggios live off the notes played, shifting harmony as the keys change in a way no present sequencer ever will. The JP-8 will arpeggiate over the bottom of a split keyboard which leaves the top end free for polyphonic chord, solo or effect work. Arpeggios will

play octaves off one note, or follow the notes in the order they are played when more notes are held. The Arpeggio changes as notes are changed over one of four ranges, with any patch and at any speed. Arpeggios can move either Up, Down, Up and Down, or at random among the notes held for a Sample and Hold effect that does not destroy the harmony. The speed of the Arpeggio is internally controlled by a Rate slider, and can also be controlled by an external clock signal from a device such as the Roland Compu-Rhythm, CR-8000, TR-808 and TR-606.

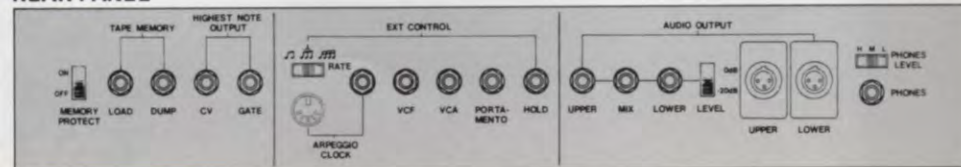
SPECIFICATIONS

- Keyboard: 61 keys, 5 octaves, C scale
- VCO Modulation: LFO Mod, ENV Mod, Mod Switch (VCO-1/BOTH/VCO-2), Pulsewidth Mod, PWM Mode Switch (LFO/Manual/ENV-1)
- VCO-1: Cross Mod, Range (16', 8', 4', 2'), Waveform (∧, /, □, ▢)
- VCO-2: Sync Switch (OFF/ON), Freq Range Switch (Normal/Low Freq), Range (16' — 2' Chromatic), Fine Tune (±50 cent), Waveform (∧, /, □, ▢, Noise)
- Mixer: Source Mix (VCO-1 — Mix — VCO-2)
- HPF: Cutoff Freq
- VCF: Cutoff Freq, Resonance, Slope Switch (—12dB/—24dB), ENV Mod, ENV Selector (ENV-1/ENV-2), LFO Mod, Key Follow (0 — 120%)
- VCA: Level, LFO Mod (0, 1, 2, 3)
- ENV-1: Attack Time (1.5msec — 6sec), Decay Time (1.5msec — 12sec), Sustain Level, Release Time (1.5msec — 12sec), Key Follow (ON/OFF), Polarity (∧, /, □, ▢)
- ENV-2: Attack Time (1.5msec — 6sec), Decay Time (1.5msec — 12sec), Sustain Level, Release Time (1.5msec — 12sec), Key Follow (ON/OFF)
- LFO: Rate (0.05Hz — 40Hz), Delay Time (0 — 4sec), WaveForm (∧, /, □, ▢, Random), Rate Indicator
- Arpeggio: Rate (1Hz — 25Hz),

- Switch (IN/EXT)
- Volume
- Balance
- Tune (±50 cent)
- Patch Memory: Patch Number Button (64 Memory), Manual Button, Patch Preset Button (8 Preset), Write Button, Memory Protect, Indicator
- Tape Memory: Dump Button, Verify Button, Load Button, Data Check Indicator
- Patch Number: Display
- Arpeggio: Range (1, 2, 3, 4), Mode (Up, Down, U&D, Random)
- Assign Mode: Solo, Unison, Poly-1, Poly-2
- Hold: Lower Hold (ON/OFF), Upper Hold (ON/OFF)
- Key Mode: Dual, Split, Whole
- Panel Mode: Lower, Upper
- Portamento: Portamento Time, Portamento Mode (Upper Only/OFF/ON)
- LFO Modulation: ON/OFF Button, Rise Time
- Bender: Bender Lever, VCO Bend Sensitivity, VCO-1 Bend Switch (ON/OFF), VCO-2 Bend Switch (ON/OFF), VCF Bend Sensitivity, VCF Bend Switch (ON/OFF), VCO Mode Sensitivity, VCO Mod Switch (ON/OFF), VCF Mod Sensitivity, VCF Mod Switch (ON/OFF)
- Rear Panel Audio Out: Cannon Upper (0dBm), Cannon Lower (0dBm), Jack Upper, Jack Mix, Jack Lower, Level Selector (0dB/—20dB), Phones Jack (Stereo), Phones Level, Selector (L/M/H)
- Ext Control: Hold, Portamento, VCF, VCA
- Arpeggio Clock: Input, Din Plug, Beat Selector (., ., ., .)
- Highest Note Output: CV Out (0V — 5V), Gate Out (0V — 15V)
- Tape Memory: In, Out
- Memory Protect Switch (ON/OFF)
- Dimensions: 1063 (W) x 120(H) x 485(D)mm (41.9" x 4.72" x 19.1")
- Weight: 21.5kg. (47.3 lbs.)

- Options: KS-20 stand (KSA-20: Adaptor to allow use of KS-20 with Jupiter 8), FV-20 foot volume, DP-2 pedal switch, TB-8 aluminum case

REAR PANEL



JUPITER-6

6-VOICE POLYPHONIC SYNTHESIZER



• The Jupiter-6 is a 6-voice polyphonic synthesizer with 61 keys, 12 VCOs and a number of multi-functional features, including a patch memory, a highly-reliable digital LFO, ADSR and Portamento. The result is a synthesizer that outperforms all conventional synthesizers in both live concerts and studio recordings.

• The Jupiter-6 can store a maximum of 32 different patch preset modes (4 banks of 8 numbers) combining patch memory tones and panel settings. The wide variety of preset modes allows the player to quickly and easily change from one mode to another while playing. The patch preset can be easily shifted by simply connecting the DP-2 pedal switch to the patch shift jack on the rear panel of the Jupiter-6.

• The patch memory can store up to 48 different musical tones. It also incorporates a tone modifier which allows the player to modify stored tones during performance. Should power be interrupted for any reason, a built-in battery preserves the data in the memory.

• The Jupiter-6 incorporates both the Keyboard (Whole, Split-1 and Split-2 modes) and the Key-Assign mechanisms (Poly-1, Unison, Solo and Solo-Unison modes). Any mode can be combined with another to match the mood and style of the music being played.

• A DIN jack allows connection of any 5-pin cable that meets the MIDI (Musical Instrument Digital Interface) Bus world standards.

• The Key-Follow function in the Envelope section can be freely adjusted by means of sliding controls. This allows extensive and continuously variable expressions. Thus, both an amazingly real piano sound and an impressive synthesizer effect can be created.

• A cassette interface allows the player to record program data on a regular cassette tape. The data is transmitted at around 3,200 bauds so an entire program can be completely recorded in approximately 15 seconds.

• By simply pressing the Auto-Tune button, 12 VCO's can be precisely tuned.

• A simple touch of the arpeggio mode switch provides a wide variety of patterns, including 4 different modes up or down.

• The Detune key in the Solo Unison mode allows up to 6 different module VCO pitches to be detuned. This produces an impressive ensemble

effect.

• The manual section can be used to create an impressive effect.

• Cross Modulation allows the player to vary the reproduction with the ENV-1.

• The VCO-1 and VCO-2 effects can be synchronized in either direction, from VCO-1 to VCO-2 or vice versa.

• The continuously variable VCO-1 and VCO-2 switch their effective range from the 32' to the 2' every chromatic scale.

• The Envelope Key-Follow effect is also continuously variable.

• Any desired waveform can be quickly and easily synthesized using the VCO keys.

• The Bender Wide switch can vary the effective VCO range by more than 3oct.

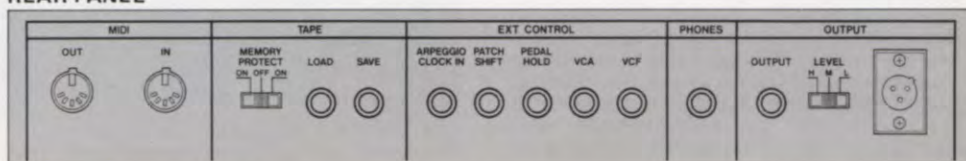
SPECIFICATIONS

• Keyboard: 61 keys, 5 octaves, C scale • VCO Modulation: LFO (10 oct.), ENV-1 (5 oct.), VCO-1 (ON/OFF), VCO-2 (ON/OFF) • PWM: PW (50% to 100%), PWM (LFO $\pm 48\%$ from PW level, ENV-1 same as above) • VCO-1: Range (32' - 2' in chromatic), Waveform ($\wedge$, $\vee$, $\square$, $\square$), Cross Mod (ENV-1, MANUAL) • VCO-2: Range (32' - 2' in chromatic) - special range (High 2' - 0.5', Low 1.5Hz - 50Hz), Waveform ($\wedge$, $\vee$, $\square$, $\square$), noise, Tune (± 50 cent) • SYNC: VCO-1 to VCO-2 ON/OFF, VCO-2 to VCO-1 ON/OFF • MIXER: VCO-1 mix VCO-2 • VCF: Mode (LPF 24dB/oct. BPF 12dB/oct. HPF 24dB/oct.), Frequency (5Hz - 30kHz), Resonance (Peak gain 15dB), ENV (10 oct., ENV-1 or ENV-2 select), LFO (10 oct.), KYBD Follow (0% to 120%) • VCA: Dynamic Range 60dB, ENV-2 level, LFO • ENV-1: Attack Time (0 - 18 sec), Decay Time (0 - 20 sec), Release Time (0 - 20 sec), Sustain Level (0 - 100%), Key Follow (0 - 120%), Polarity ($\wedge$, $\vee$) • ENV-2: Attack Time (0 - 18 sec), Decay Time (0 - 20

sec), Release Time (0 - 20 sec), Sustain Level (0 - 100%), Key Follow (0 - 120%) • LFO: Rate (0.04Hz - 100Hz), Delay Time (0 - 2 sec), Waveform ($\wedge$, $\vee$, $\square$, $\square$, Random), Random Special High Frequency (400Hz) • GLIDE: Portamento or Glissando, Time (0 - 1.6 s/oct.) • ARPEGGIO: Rate (1 - 25Hz), Range (1 - 4 oct.), Mode (up, down, up & down, down & up) • ASSIGN: Solo, Solo Unison, Unison detune ± 50 cent, POLY-1, POLY-2 • HOLD (Upper, Lower) • KEY MODE: Split 4-2, Split 2-4, Whole • PANEL MODE (Upper or Lower) • Memory Section: Bank (A - F 6 bank), Number (1 - 8, 6 x 8... 48 memory), Patch Preset (4 bank x 8... 32 preset), Manual, Write • TAPE MEMORY: Load, Verify, Save... Average 3200 band • MASTER TUNE: ± 50 cent, Compu Tune Time (0.3 sec) • BENDER: Bender Lever, VCO-1 (ON/OFF), VCO-2 (ON/OFF), Bend Wide (3 oct. fixed) VCO sens (1 oct. variable), VCF sens (5 oct. variable) • LFO-2: ON/OFF Button, VCO sens (± 100 cent), VCF sens (± 4 oct.), Rate (1 - 10Hz), Rise Time (50 ms - 1 sec) • OUTPUT: Volume (Master Volume), Balance (Lower - Upper), Cannon (imp/600 Ω), Level Attenuator (0dB, -15 dB, -30dB), Phones • EXT CONTROL: Arpeggio Clock In, Patch Shift, Pedal Hold, VCA Control (0 to -20dB), VCF Control (-6 to +2 oct.) • Others: Memory Protect Switch (ON-OFF-ON), Load input, Save output, Midi (5 PIN DIN: Output, Input) • Dimensions: 1063(W) x 120(H) x 434(D) mm (41.9" x 4.72" x 17.1") • Weight: 16 kg (35.2 lbs.)

• Options: KS-20 stand (KSA-20: Adaptor to allow use of KS-20 with Jupiter 8), FV-20 foot volume, DP-2 pedal switch, TB-8 aluminum case

REAR PANEL



JUNO-60

6-VOICE PROGRAMMABLE POLYPHONIC SYNTHESIZER



The JUNO-60 is a 61-key, 5-octave, complete 6-voice polyphonic synthesizer with a patch memory of 56 different tones (8 patches x 7 banks). Its stable digital pitch control oscillator (DCO) is perfectly tuned at all times. With 6 VCFs, 6 VCAs and 6 ENVs, you can produce the exact sound you've been dreaming of. You can freely edit the programmed sound while you play. By using the incorporated tape interface, sound data can be stored on an ordinary cassette tape. In addition, a patch shift system lets you shift patch numbers sequentially by simply pushing a pedal. There's also a battery backup system for the memory. Other features include key transpose, auto arpeggio, and octave transpose. These stretch the JUNO-60's performance beyond the 5-octave range. Two different chorus effects can be turned on and off by a push of a button. With a DCB connector and OP-8 CV interface, the JUNO-60 can even be controlled by the MC-4 Micro Composer. The JUNO-60, the latest programmable synthesizer, offers unrivalled functions and control for both live and studio performances.

• PROGRAM Section

This section can store eight patches in each of seven banks for a total of 56 programs. It stores settings for LFO, DCO, HPF, VCF, VCA, ENV, and CHORUS sections as well as octave transpose switch setting for the controller section. Program numbers are selected by a touch and digitally displayed to prevent error. Program data stored in the memory can be altered during performance. Data partially corrected during performance is not stored in the memory, so that when the same program number is next selected, the original program data is recalled. An additional copy function is handy for editing stored data to group programs according to frequency or sequence. A built-in tape interface allows an infinite amount of data to be loaded on tape. And the verify button allows you to check if all data is recorded on the tape. The patch shift system also permits patch numbers to be called up by pedal operation.

• DCO Section

The DCO (Digitally Controlled Oscillator) is a newly developed device that can work out the frequency of the tone generator by the built-in micro-computer. Thereby an extremely stable pitch is easily obtained. The three waveforms $\square$, $\wedge$, and $\square$ can be controlled individually and used in any combination. You can

choose any mode, MANUAL, LFO, or ENV, to control the pulse width of $\square$. In MANUAL, the pulse width is controlled with the PWM slider. When the pulse width is controlled by LFO or ENV, the intensity of modulation is adjusted with the same slider. In the $\square$ mode, a square wave one octave lower than the DCO's is generated. Combined with other waveforms, it provides a fuller, richer sound. Besides, the volume is adjustable with the SUB OSC slider, which makes it easier to obtain more delicate effects. As the volume of the noise is adjustable with the slider as well, you can enjoy a wider variation of sound creation. Also, the vibrato effect can be easily controlled.

• DCB (Digital Communication Bus)

The DCB interface system uses digital control signals to exchange CV and GATE information with other instruments. With an optional OP-8 CV interface, the JUNO-60 can be controlled by the MC-4 Micro Composer and similar models.

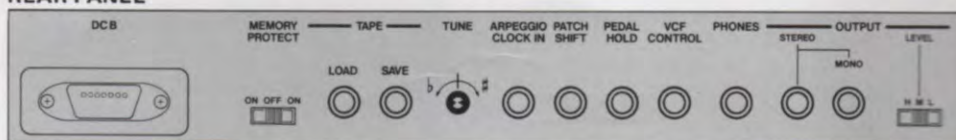
SPECIFICATIONS

• Keyboard: 61 keys, 5 Octaves, C scale • DCO: Wave Forms ($\square$, $\wedge$, $\square$), LFO Mod, PWM Mod, PWM Mode Switch (LFO/Manual/ENV), Sub Osc on/off, Sub Osc level, Noise level • HPF: Cutoff Frequency (off/1/2/3) • VCF: Cutoff Fre-

quency, Resonance, ENV polarity ($\wedge$, $\vee$), ENV Mod, LFO Mod, Keyboard follow (0 ~ 100%) • VCA: Control Signal Select switch, VCA Level • ENV: Attack time (1ms - 3 sec), Decay Time (2ms - 12 sec), Sustain level (0 - 100%), Release time (2ms - 12 sec) • LFO: Rate (0.3Hz - 20Hz), Delay, Trigger mode (Auto/Manual) • Arpeggio: Arpeggio on/off, Mode (Up/Up & Down/Down), Range (1/2/3), Rate (1.5Hz - 50Hz) • Key Transpose: Button • Hold: Button • Chorus: Selector (off/1/2) • Memory: Patch number button x 8, Bank number button x 7, Manual button, Write button, Save button, Verify button, Load button, Patch & Bank number display • Controller: Octave Transpose (Down/Normal/Up), Bender lever, Bender Sensitivity (DCO), Bender Sensitivity (VCF), Volume • Rear Panel: Output level (L/M/H), Output x 2 (Mono/Stereo), Phones jack, VCF Control jack, Pedal Hold jack, Arpeggio Clock in jack, Patch shift jack, Tune (± 50 cents), Load jack, Save jack, Memory Protect switch, DCB (Digital Communication Bus) • Dimensions: 1060(W) x 113(H) x 378(D) mm (41.7" x 4.45" x 14.9") • Weight: 12 kg (26.4 lbs.) • Accessories: 2.5m Connection Cord x 2

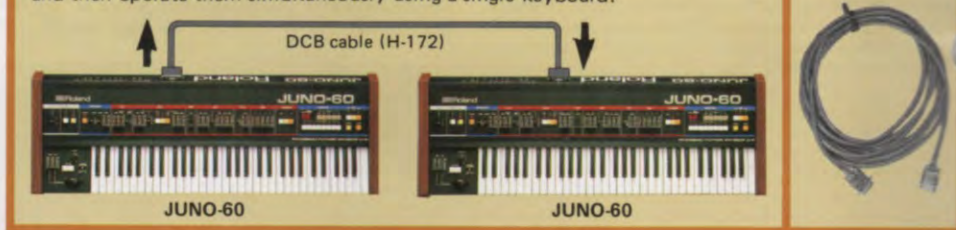
• Options: KS-2 stand, FV-200 keyboard volume, DP-2 pedal switch, CB-JUNO leatherette case

REAR PANEL



To connect two JUNO-60's

An optional H-172 DCB cable can be used to connect two JUNO-60's and then operate them simultaneously using a single keyboard.



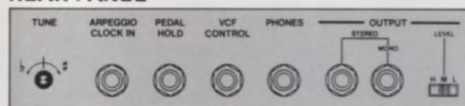
JUNO-6

6-VOICE POLYPHONIC SYNTHESIZER



- 61-key, 6-voice polyphonic synthesizer complete with six VCF's, six VCA's and six ENV's.
- Use of digital controlled oscillator (DCO) provides perfect tuning at all times.
- Built-in chorus circuitry produces rich strings and organ effects.
- Auto arpeggio for an added convenience.
- Key transpose function allows musical passages of any key to be transposed to C.

REAR PANEL



SPECIFICATIONS

- Keyboard: 61 keys (5 octave)
- DCO: LFO Mod, PWM Mod, PWM Mode Switch (LFO/Manual/ENV-1), Pulse wave ON/OFF, Sawtooth wave ON/OFF, Sub osc ON/OFF, Sub osc level, Noise level
- HPF: Cutoff frequency
- VCF: Cutoff frequency, Resonance, ENV polarity (Normal/Inverse), ENV Mod, LFO Mod, Keyboard follow (0-100%)
- VCA: ENV selector (ENV/Gate)
- ENV: Attack time, Decay time, Sustain level, Release time
- LFO: Rate, Delay, Trigger mode (Auto/Manual)
- Arpeggio: Arpeggio ON/OFF, Mode (up/up & down/down), Range (1/2/3), Rate
- Key transpose
- Hold
- Chorus: Selector (off/1/2)
- Controller: Octave transpose (down/normal/up), LFO trigger button, Bender lever, Bender sensitivity (DCO), Bender sensitivity (VCF), Volume
- Rear panel: Output level (L/M/H), Output x 2 (mono, stereo), Phones jack, VCF control jack, Pedal hold jack, Arpeggio clock input jack, tune (± 50 cent)
- Dimensions: 1060(W) x 113(H) x 378(D)mm (41.7" x 4.45" x 14.9")
- Weight: 11kg (24.2 lbs.)
- Accessory: 2.5m Connection cord x 2



SH-101

MONOPHONIC SYNTHESIZER



Despite its small size, the high cost-performance SH-101 Monophonic Synthesizer has outstanding features comparable to those of larger synthesizers.

- The Source Mixer is capable of mixing $\square$, $\wedge$, sub-oscillator, and noise at any rate you desire for sound creation well beyond the scope of a single VCO.
- The built-in Digital Sequencer allows automatic playing of up to 100 steps. The SH-101 doubles as a synthesizer and digital sequencer.
- The auto-arpeggio function performs arpeggios by a simple press of the chord.
- The Key Transpose function lets the player transpose to any key, so the range of performance is substantially expanded.
- Octave Transpose can shift the range by one octave higher or lower. By combined use of the Key Transpose, VCO, and sub-oscillator range, a sound range of more than 11 octaves is obtained.
- In addition to the conventional portamento, an automatic portamento is provided, which operates only during legato playing. Portamento control while playing is easy.
- There are also CV/GATE Input/Output jacks and an external Clock Input jack which make possible a variety of performances in combination with other musical instruments.
- The 2-way (DC/AC) power supply system enables you to play the SH-101 anywhere.
- It's also compact, lightweight (4.1kg), and easy to carry.
- With an optional MGS-1 (Modulation Grip Set) designed exclusively for the SH-101, Bender operation and LFO Modulation ON/OFF are easy to control. Playing is also possible in a standing position using Strap Pins.

SPECIFICATIONS

- Keyboard: 32 keys, F-scale
- VCO: Range; 16', 8', 4', 2', Pulse width modulation; 50% to Min., PWM mode switch; ENV/MANUAL/LFO, Modulation depth, Tune; ± 50 cents
- Source Mixer: $\square$ level, $\wedge$ level, Sub-oscillator level, Sub-oscillator waveforms; 1 OCT DOWN $\square$ / 2 OCT DOWN $\square$ / 2 OCT DOWN $\square$, Noise level
- VCF: Cut-off frequency; 10Hz to 20kHz, Resonance; 0 to Self-oscillation, ENV depth, Modulation depth, Key follow; 0 to 100%
- VCA: Control signal selector switch; ENV $\wedge$ / GATE $\square$
- ENV: Attack time; 1.5ms to 4s, Decay time; 2ms to 10s, Sustain level; 0 to 100%, Release time; 2ms to 10s, Gate trigger selector switch; GATE + TRIG/GATE/LFO
- Modulator: LFO/CLK Rate: 0.1Hz to 30Hz, LFO/CLK Rate indicator, Waveforms: $\wedge$ / $\square$ / RANDOM/NOISE
- Controller: Volume, Portamento time: 0 to 3s, Portamento mode switch: AUTO/OFF/ON, Octave transpose: L/M/H, Bender sensitivity (VCO), Bender sensitivity (VCF), LFO $\wedge$ Modulation depth, Bender lever (LFO Modulation switch)
- Sequencer: (100 Steps MAX) Load button and indicator, Play button and indicator
- Arpeggio: UP button and indicator, U and D buttons and indicator, DOWN button and indicator
- HOLD: HOLD button and indicator
- Key Transpose: Key Transpose button and indicator
- Power Source: Power switch, Indicator
- Connection Jacks: Output jack; 0dBm MAX., Headphone jack; Stereo 8 Ω to 15 Ω , CV output jack; 1V/1 OCT. 0.415V to 5V, GATE output jack; OFF: 0V, ON: 12V, CV input jack; 1V/1 OCT 0 to 7V, GATE input jack; ON at +2.5V over Pedal HOLD jack (DP-2), External clock input jack; Step at more than +2.5V pulse, DC input jack (9V to 12V/exclusive adaptor PSA series), Connecting jack for Modulation Grip
- Power supply: 9VDC (6 UM-2 or PSA series adaptor)
- Dimensions: 570(W) x 80(H) x 311(D)mm (22.4" x 3.15" x 12.2")
- Weight: 4.1kg (9.02 lbs.) (w/o batteries)
- Accessories: 2.5m connection cord, BR-2 (Battery) x 3

- Options: PSA series AC adaptor, BR-2 (UM-2 x 2) Drycell battery, PCS-4 (miniplug $\leftrightarrow$ standard plug) cord, SC-101 soft case

MGS-1 (MODULATION GRIP SET)



To play the SH-101 while standing up, attach the strap pins to the SH-101. When the MG-1 is used, the Bender and LFO modulation can be controlled at a single touch.

• BENDER

With this option, you can use the Bender only in an upward direction, as you might when "choking" a guitar. The degree of Bender effect is controlled by the "Bend Sensitivity" of the SH-101. The bender lever of the SH-101 can also be used.

• $\wedge$ LFO Modulation Button

When this button is pressed, LFO waveform modulates the VCO and VCF. Combined use of this button with the Bender can produce a choking and vibrato effect.

- Contents: MG-1 (Modulation Grip) x 1, Strap x 1, Strap pins x 2



EP-6060

DUAL VOICE COMBO PIANO



- This dual voice combo piano has two completely independent channels. This means that you are free to produce different sounds for each channel, to mix and balance as you desire for full-bodied sound and natural chorus effects.
- Comes complete with the Foot Selector Switch to select the desired sound from the standard (8'), 1-octave lower (16') and the perfect fifth (5-1/3') with Channel B.
- Three different tones — soft, semi-bright, and bright — can be combined for added sound depth. A Decay Time Control allows optimum decay time settings.
- A 6-band equalizer with a bypass switch lets you tailor sound makeup to suit the amp and acoustic environment.
- Other features include Auto Arpeggio, Upper Harmony, and Key Transpose. Limitless arpeggio patterns available by combining variation and beat, while using the Lower Hold function. Chords are harmonized with the melody when the Upper Harmony feature is on, producing profound sounds. In addition, the Key Transpose function expands your playing range, and transposing to any key is instantaneous.
- Since channels can be individually tuned, honky-tonk sound and chorus effects can be controlled to fit your taste.
- Line and monitor levels independently controlled for recording convenience.
- A 2W output speaker is built-in to eliminate the need for an external amplifier.
- Provided with a DIN jack for synchronous performance with other units such as the TR-606 and TB-303.

SPECIFICATIONS

■ Keyboard: 61 key (5 octave C-scale) ■ Sound section • Tone selector: I, II, III (CH-A, CH-B) • Foot selector switch: 16' ↔ 8' (CH-A), 16' ↔ 8' ↔ 5-1/3' (CH-B) • Decay time control: SHORT ↔ LONG (CH-A, CH-B) • Balance slider: • Graphic equalizer: (6 bands — 100, 200, 400, 800, 1.6K, 3.2K: ±15dB) • Bypass switch: BYPASS ↔ EQ (CH-A, CH-B) ■ Mode section • Arpeggio button • Keyboard split button • Normal button • Lower hold button • Upper harmony button ■ Arpeggio section • Lower level • Arpeggio rate: SLOW ~ FAST • Variation selector: I, II, III, IV • Beat selector: 3/4, 4, 8, 12 ■ Others • Tuning control: ±50 cents, Center A = 442Hz (CH-A, CH-B) • Transpose button • Line level • Monitor level • Monitor speaker: 12 x 8cm (4.7" x 3.2") (Output: 20W) • Power switch ■ Rear panel • Line-out jack • Headphone jack • Pedal jack • Arpeggio stop jack • Sync out jack (DIN) • Line-out level switch: 0 ↔ -15 ↔ -30dB ■ Dimensions: 912(W) x 115(H) x 325(D)mm (35.9" x 4.5" x 12.8") ■ Weight: 9.5kg (20.9lbs.) ■ Accessories: 2.5m connection cord (LP-25), Pedal switch (DP-2), Music rest

- Options: KS-2 stand, SC-60 soft case, and DP-2 pedal switch

REAR PANEL



PIANO PLUS 70 <HP-70> / 60 <HP-60>

ELECTRONIC PIANO



Unlike most pianos in their class, the Piano Plus 70 and Piano Plus 60 are extremely light and compact for easy carrying. They're also easier to use. The variable key touch control lets you adjust key play so that it seems you're playing an acoustic piano. At the same time, both models can produce full selection of electronic piano sounds. High-performance speakers on both sides of the simulated wood body make the 70 and 60 perfect for home use. And, when connected to an external amplifier, they're perfectly suitable for concert halls. Piano Plus 70 and 60. The compact electronic pianos with the big sound.

- Piano Plus 70 is the 75 key compact piano and Piano Plus 60 is small enough to use on a table. Their rich, simulated wood finish blends with any interior.
- Twin speakers produce clear, crisp piano sounds. Volume control and headphone jack are standard. For a bigger sound, simply connect to an auxiliary amplifier.
- A touch sensor lets you stress sounds using the key-touch control and with the touch control, play is comparable to an acoustic piano's.
- Four tone colors can be selected by the push buttons: Piano I and Harpsichord I for classics and Piano II and Harpsichord II for pop and jazz.
- Piano Plus 70 comes with a built-in chorus effect to deepen and extend sounds. Just press a button to turn it on.
- The sustained sound gradually fades after the key is released. Sustain time is fully adjustable and an accessory pedal switch (DP-2) can be used as damper pedal.
- The input jack allows easy connection with rhythm machines and synthesizers.
- Since everything is electronic, tuning is never required.

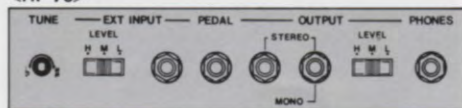
SPECIFICATIONS

• Keyboard: 75 keys (F1 ~ G7) [HP-70] / 61 keys (C2 ~ C7) [HP-60] • Tone Selector: Piano I/II, Harpsichord I/II • Special Functions: Touch Control • Effect: Chorus, Sustain Time [HP-70] / Sustain Time [HP-60] • Tuning: ± 30 cents • Speaker: 10cm x 2 (2W x 2) • Rear Panel: Output Jack (HP-70 stereo/mono, HP-60 mono), External Input Jack, Phones Jack (8 Ω stereo), Sustain Pedal Jack • Others: Power Switch, Total Volume • Dimensions: 1105(W) x 130(H) x 300(D)mm (43.5" x 5.12" x 11.8") [HP-70] / 915(W) x 130(H) x 300(D)mm (36.0" x 5.12" x 11.8") [HP-60] • Weights: 12kg (26.4 lbs.) [HP-70] / 10.1kg (22.22 lbs.) [HP-60] • Accessories: Music Rest, Pedal Switch (DP-2), Cover

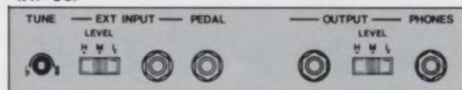
- Options: KS-2 stand, DP-6 damper pedal, SC-70 soft case, SC-60 soft case

REAR PANEL

<HP-70>



<HP-60>

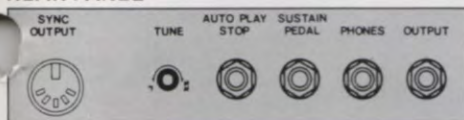


PIANO PLUS 11 <EP-11>

ELECTRONIC PIANO

- The EP-11 has Auto Bass, Auto Chords and Auto Arpeggio functions for piano. Also equipped with Auto Rhythm the first time as an electronic capable of selecting 8 different rhythm patterns.
- Four bass and arpeggio pattern variations are available for each rhythm to give you a tremendous playing range.
- The Lower Hold function lets the accompanying part continue even after the left hand is removed, and the Upper Harmony function automatically harmonizes chords played with the left hand with the melody played with the right hand.
- Key Transpose function that allows the player to designate the transposed key on the keyboard by key name. Transposition to any key is instant. Music of different keys can be played in C major.
- There are five tone colors; Piano I, II, III, and Harpsichord I and II. All are freely variable from percussive to long sustain with the sustain time control.
- A built-in 2W output speaker eliminates the need for an external amplifier. Headphones can also be used.
- The sustain effect can be set so the sound fades out once the keys are released.
- Tuning is never needed since this is a true electronic piano.

REAR PANEL



SPECIFICATIONS

• Keyboard: 61 keys (C2 ~ C7) • Tone Selector: Piano I/II/III, Harpsichord I/II • Auto Rhythm: Rhythm Selector (Rock, Bossanova, Disco, March, Swing, Shuffle, Slowrock, Waltz), Start/Stop Button, Tempo, Tempo Indicator, Rhythm Level • Auto Play: Mode Selector (Normal, Bass, Chord, Arpeggio), Mode Indicator x 4, Bass Level, Lower Level, Bass Variation (I/II/III/IV), Arpeggio Variation (I/II/III/IV), Lower Hold (on/off), Lower Hold Indicator, Upper Harmony (on/off), Upper Harmony Indicator • Special Functions: Transpose Button, Transpose Indicator • Effect: Sustain Time • Tuning: ± 50 cents • Speaker: 10cm (2W) • Rear Panel: Output Jack, Phones Jack (8 Ω stereo), Sustain Pedal Jack, Auto Play Stop, Sync Output (clock & start/stop) • Others: Power Switch, Total Volume • Dimensions: 912(W) x 115(H) x 325(D)mm (35.9" x 4.5" x 12.8") • Weight: 9kg (19.8 lbs.) • Accessories: Music Rest, Pedal Switch (DP-2), Cover

• Options: KS-2 stand, RH-10 stereo headphones, SC-60 soft case

PIANO PLUS 11 WOOD

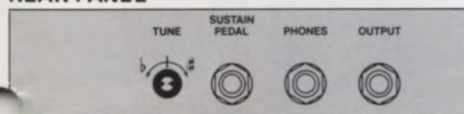


PIANO PLUS 30 <HP-30>

ELECTRONIC PIANO

- With the auto arpeggio function you can play chords with your left hand and the melody with your right.
- Built-in speaker provides a solid, clear sound. Or, you can connect the Piano Plus 30 to an instrument with a hi-fi amp.
- Two tone color for both piano and harpsichord can be selected at the touch of a button.
- Complete volume control and a jack for headphones.
- Sustain effect to hold notes and add dramatic touches.
- No tuning is required since this piano is entirely electronic.

REAR PANEL



SPECIFICATIONS

• Keyboard: 61 keys (C2 ~ C7) • Tone Selector: Piano I/II, Harpsichord I/II • Auto Play: Arpeggio, Rate, Range (1 oct, 2 oct, 30 oct), Mode (up, up/down, down), ON/OFF, Hold • Effect: Sustain (on, off) Sustain Time • Tuning: ± 30 cents • Speaker: 12cm x 8cm, 2W • Rear Panel: Output Jack, Headphone Jack, Sustain Pedal Jack, Tune • Others: Power Switch Total Volume • Dimensions: 915(W) x 130(H) x 300(D)mm (36.0" x 5.12" x 11.8") • Weights: 10.1kg (22.22lbs) • Accessories: Music Rest, Pedal Switch (DP-2), Cover

• Options: KS-2 stand, DP-6 damper pedal, SC-60 soft case



RS-09

ORGAN/STRINGS

No other electronic instrument made by any other maker anywhere in the world offers the combination of versatility and sound of Roland's dramatically new RS-09. This advanced keyboard instrument is both an electronic organ and an electronic strings, with a broader range of control over both sounds than most individual units. With its 44 key keyboard, separate string and organ sections, envelope control, vibrato and ensemble, it provides musicians a scope that before could only be duplicated with two or more instruments. And despite its wealth of functions, the RS-09 is available at a surprisingly low cost.

A full set of sliding controls allows fast, easy mixing of 8', 4', 2' and 1' notes. Attack time is continuously variable for strings and both strings and organ sounds with sustain and ensemble effects.

The two channel output allows contouring the sound field with an external PA or audio system for a wide-spreading stereo effect. An EXT AUDIO IN terminal permits direct connection of a guitar or microphone to the ensemble modulator section to add even more versatility. The RS-09 can also be connected directly to an external synthesizer and effect units.

Light and compact, the RS-09 is fully portable and is available with an optional stand, foot pedal and other fine Roland accessories.

REAR PANEL



SPECIFICATIONS

- Keyboard: 44 keys, 3-1/2 octave
- Strings section: Strings Tablet (8', 4'), Ensemble ON/OFF Switch, Attack Time
- Organ Section: Mixing Volume (8', 4', 2', 1') Organ ON/OFF Tablet, Tone Switch, Ensemble ON/OFF Switch
- Envelope Control: Release Time, Release Mode Switch
- Vibrato Control: Delay Time, Rate, Depth
- Ensemble Mode Switch
- Tone Control
- Volume
- Transpose Switch
- Tuning (± 35 cent)
- Power Switch
- Power Indication LED
- Connection Terminal: Output x 2 (stereo), Output Level Switch (L = -30dBm/M =

- 15dBm/H = 0dBm), Headphone (for 8 Ω stereo), Organ RAW Signal Output (Max. 0.5Vp-p), Gate Output (OFF = 0V, ON = +14V), Sustain Pedal Connection, External Signal Input, External Signal Level Switch (L = 0dBm/M = -20dBm/H = -40dBm)
- Dimensions: 676(W) x 102(H) x 306(D)mm (26.6" x 4.0" x 12.1")
- Weight: 7.3kg (16.1 lbs.)
- Accessory: 2.5m Connection Cord x 2
- Options: KS-1 stand, FV-200 foot volume, DP-2 pedal switch, CB-09 leatherette case, SC-2 soft case, SC-09 soft case

VK-09

ELECTRONIC ORGAN



Roland's new VK-09 is an economically-priced, compact combo organ with 61 keys and drawbar control. With its "bright wave" and "sine wave" sound sources and six drawbars, it is capable of a wide range of effects. Standard features include Vibrato/Chorus for slow choral and fast rotary speaker sound, percussion effect, volume soft and decay fast.

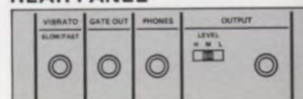
SPECIFICATIONS

- Keyboard: 61 keys (C scale)
- Sound Sources: Sine Wave, Bright Wave, Sine and Bright Wave
- Percussion: 2nd and 3rd Harmonics, Soft Volume, Decay Fast
- Vibrato Chorus: Slow, Fast, ON/OFF Switch
- Sustain Control: Sustain ON/OFF Switch, Sustain Time
- Drawbar Control: 16', 5-1/3', 8', 4', 2-2/3', 2' with each sound sources
- Foot Switch: for change percussion Slow/Fast
- Dimensions: 892(W) x 106(H) x 347(D)mm (35.1" x 4.2" x 13.7")
- Weight:

- 9kg (19.8 lbs.)
- Accessory: Music Rest

- Options: KS-10 stand, FV-2 foot volume, CB-1 leatherette case

REAR PANEL



Systematized equipment and accessories

DIGITAL SEQUENCERS

CSQ-600

With its integrated micro-computer, the CSQ-600 can store a maximum of 600 steps and rhythms. Sequences are directly loaded from the keyboard, and both scales (CV) or rhythms (GATE) can be added separately. To protect the memory, a battery backup function is provided. Four different memories allow continuous or random loading and playback and the CSQ-600 can be used with the Compurhythm CR-78. Several CSQ-600s can be used together for an even greater range.



- Maximum Storage Capacity: 600 notes (or 150 notes per channel)
- Dimensions: 450(W) x 95(H) x 305(D)mm (17.7" x 3.7" x 12.0")
- Weight: 3.9kg (8.6 lbs.)
- Accessories: 1.5m Dual Patch Cord (x2)

CSQ-100

The CSQ-100 Digital Sequencer with its micro-processor element stores up to 168 notes. Synthesizer — played sequences can be loaded directly, and pitch can be loaded either separately at a constant time value or with variable time values added afterwards.



- Maximum Storage Capacity: 168 notes (or 84 notes per channel)
- Dimensions: 345(W) x 95(H) x 305(D)mm (13.6" x 3.7" x 12.0")
- Weight: 2.7kg (5.94 lbs.)
- Accessories: 1.5m Dual Patch Cord (x2)

KEYBOARD AMPLIFIERS

CUBE-60 KEYBOARD <CK-60>

- This portable, full range, two way speaker system features a powerful sound and extremely well balanced frequency characteristics.
- CUBE-60 Keyboard has 2-ch inputs for performing two keyboard instruments simultaneously.
- Each channel has an input attenuator and its wide dynamic range to allow the acceptance of input signals of any magnitude without causing input clipping.
- Each channel has, in addition to input attenuator, ON/OFF switch of incorporated Reverb system.
- The 6 useful jacks located on the rear panel include Pre-out/Main-in jacks, Rec-out jacks (mono), Headphone jack, and Ext. speaker jack.



- Output: 60W (RMS)
- Speaker: 30cm x 1, Horn Tweeter x 1
- Dimensions: 370(W) x 465(H) x 300(D)mm (14.6" x 18.3" x 11.8")
- Weight: 16.5kg (36.3 lbs.)
- Accessory: Vinyl cover



CUBE-40 KEYBOARD <CK-40>

- CUBE-40 Keyboard is a self-contained full range 10' double cone speaker with 40W (R.M.S.) of power, which is small but incredibly powerful and versatile.
- CUBE-40 Keyboard has 2-ch inputs for performing two keyboard instruments simultaneously.
- Each channel has an input attenuator and its wide dynamic range to allow the acceptance of input signals of any magnitude without causing input clipping.
- Incorporated Reverb system.
- The 5 useful jacks located on the rear panel include Pre-out/Main-in jacks, Rec-out jacks (mono), and Headphone jack.



- Output: 40 W (RMS)
- Speaker: 25cm double cone x 1
- Dimensions: 310(W) x 368(H) x 205(D)mm (12.2" x 14.5" x 8.1")
- Weight: 11kg (24.2 lbs.)
- Accessory: Vinyl cover



PA SPEAKER SST (PROFESSIONAL SOUND SYSTEM) series

SST-120

This portable, full-range, three-way speaker system features a powerful sound and extremely well balanced frequency characteristics for a wider application range. It can be used for PA, keyboards and bass guitars.



- Speakers: Woofer 38cm (R & P) x 1, Mid-Range Horn x 1, Tweeter Horn x 2
- Frequency Response: 50Hz ~ 20kHz
- Nominal Impedance: 8Ω
- Power Handling Capacity: 120W (rms) Continuous
- Dimensions: 584(W) x 838(H) x 468(D)mm (23.0" x 33.0" x 18.4")
- Weight: 45kg (99 lbs.)

- The two-way system combines a highly efficient, high power woofer (30cm on SST-80/60 and 25cm on SST-40) and horn tweeter (piezo ceramic) to produce a powerful sound and a wide dynamic frequency response.
- Compactly designed for easy transport and storage. Phono jacks and terminal jacks allow easy connection and additional installation.
- Suitable for use with mixers, keyboards, and amplifiers.

SST-80



- Speaker: 30cm (12") x 1
- Tweeter Horn x 3
- Frequency Response: 60Hz ~ 20kHz
- Nominal Impedance: 8Ω
- Power Handling Capacity: 80W (rms) Continuous
- Input Jack: Phone jack, Push terminal jack
- Dimensions: 474(W) x 605(H) x 315(D)mm (18.7" x 23.8" x 12.4")
- Weight: 20kg (44 lbs.)
- Accessory: Speaker Cord (10m)

SST-60



- Speaker: 30cm (12") x 1, Tweeter Horn x 2
- Frequency Response: 60Hz ~ 20kHz
- Nominal Impedance: 8Ω
- Power Handling Capacity: 60W (rms) Continuous
- Input Jack: Phone jack, Push terminal jack
- Dimensions: 457(W) x 580(H) x 309(D)mm (18.0" x 22.8" x 12.2")
- Weight: 19.5kg (42.9 lbs.)
- Accessory: Speaker Cord (10m)

SST-40



- Speaker: 25cm (10") x 1, Tweeter Horn x 1
- Frequency Response: 60Hz ~ 20kHz
- Nominal Impedance: 8Ω
- Power Handling Capacity: 40W (rms) Continuous
- Input Jack: Phone jack, Push terminal jack
- Dimensions: 418(W) x 516(H) x 301(D)mm (16.5" x 20.3" x 11.9")
- Weight: 15.5kg (34.1 lbs.)
- Accessory: Speaker Cord (10m)

Systematized equipment and accessories

RHYTHM MACHINES

TR-808

RHYTHM COMPOSER

The Roland TR-808 is a revolutionary computer-controlled rhythm machine which offers up to 768 measures of programming at a time. In addition, this unit offers more percussive variations and more effects than virtually any other unit on the market. With it, you can visualize patterns and real time processing, program complete scores and do just about everything else a rhythm machine should do with more accuracy and less trouble.

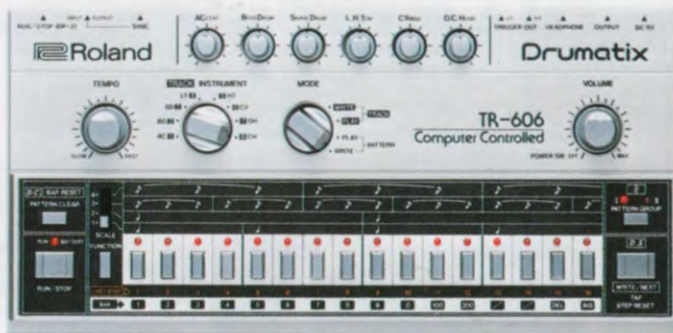
- Dimensions: 508(W) x 85(H) x 305(D)mm (20.0" x 3.4" x 12.0") • Weight: 5kg (11 lbs.)



TR-606

DRUMATIX

- Unlike conventional rhythm machines with pre-programmed patterns, this unit is capable of memorizing any rhythm the user wishes to create. Up to 32 rhythm patterns can be memorized at one time.
- Easy synchronization with the MC-4 Micro-composer or the CSQ-600 Digital Sequencer via DIN connector.
- Rhythms can be created anywhere using headphones, since this machine runs on batteries.
- Soft case for convenient carrying.
- Dimensions: 300 (W) x 55 (H) x 146 (D) mm (11.8" x 2.17" x 5.75") • Weight: 1.0kg (2.2 lbs.)



TB-303

BASS LINE

Roland introduces the world's first computerized bass machine, the great new Bass Line TB-303. This remarkable little unit covers three full octaves. Instead of strings, you use keys to program bass patterns. Up to 64 patterns can be created for use anytime. And, like a bass synthesizer, you have full control over resonance, envelope modulation and other important factors influencing sound quality. When used with Roland's TR-606, you can play bass and drum patterns at the same time. Completely portable, the TB-303 runs on either battery or AC line voltage and comes completely equipped with its own carrying case. A headphones jack is also provided as standard.

- Dimensions: 300 (W) x 55 (H) x 146 (D) mm (11.8" x 2.17" x 5.75") • Weight: 1.0kg (2.2 lbs.)



DR-55

DR. RHYTHM

This dramatically different rhythm machine has its own microcomputer which lets you arrange and program your own rhythm patterns that can be recalled instantly at the touch of a button. With the Dr. Rhythm you can program six 16-step rhythm patterns and two 12-step patterns. Each pattern can contain up to three independently programmed percussive sounds: Snare Drum, Rim Shot, and Bass Drum. To this you can add programmed accents, or a fixed pattern Hi-hat sound. Not only that, but you can write both "A" and "B" versions of each pattern, thus doubling the effective memory capacity.



- Dimensions: 211(W) x 53(H) x 116(D)mm (8.3" x 2.1" x 4.6") • Weight: 850g (1.87 lbs.)

Systematized equipment and accessories

RHYTHM MACHINES

MICRO COMPUTER CONTROLLED RHYTHM MACHINE

CR-8000

Here's the most convenient rhythm machine, the new CR-8000 CompuRhythm Unit from Roland, with new design and circuit. This unit has twenty-four kinds of Basic Rhythm Patterns and eight kinds of Intro/Fill-In Rhythm Patterns as presets. In addition, CR-8000 has eight kinds of Program-mable sections for Basic Rhythm and four kinds of Programmable sections for Intro/Fill-In Rhythm. You can write your own rhythm pattern at will.

- Dimensions: 331(W) x 108(H) x 278(D)mm (13.03" x 4.25" x 10.95")
- Weight: 3.7kg (8.14 lbs.)



CR-5000

A high-performance Compu-Rhythm machine identical to the CR-8000 but without a memory function. Designed for users who want a wealth of rhythms with a simple control. This unit has 24 kinds of Basic rhythm patterns and 8 kinds of Intro/Fill-In rhythm patterns as preset rhythm.

- Dimensions: 331(W) x 108(H) x 278(D)mm (13.03" x 4.25" x 10.95")
- Weight: 3.7kg (8.14 lbs.)

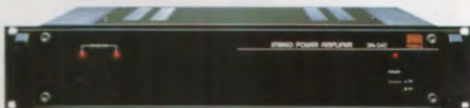


THE ROLAND RACK series

SPA-240

STEREO
POWER AMPLIFIER

240W of superb clarity.



SPA-120

STEREO
POWER AMPLIFIER

120W of all the sound you need.



SBF-325

STEREO FLANGER

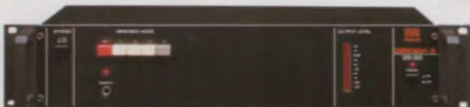
Stereo flanger offers an expanded effect range.



SDD-320

DIMENSION D

Dimension D changes spatial response four ways.



SVC-350

VOCODER

Vocoder with advanced filtering system.



SDE-2000

DIGITAL DELAY



- Dimensions: 482(W) x 47(H) x 355(D)mm (19.0" x 1.85" x 14.0")
- Weight: 5.5kg (12.1 lbs.)

SPV-355

P/V SYNTHESIZER

P/V synthesizer specifically designed for use with guitars.



SPH-323

PHASE SHIFTER

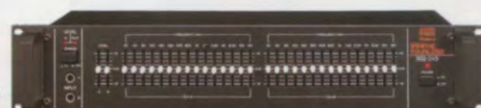
Phaser for versatile phase effects.



SEQ-315

STEREO
GRAPHIC EQUALIZER

One of the most versatile graphic equalizers ever built.



SEQ-331

GRAPHIC EQUALIZER

Complete frequency control in 31 divisions.



SMX-880

LINE MIXER

A studio quality line mixer you can take anywhere.



GUITAR AMPLIFIER JC series



- JC-160
- 120W (R.M.S.)
- 2 Channel



- JC-120
- 120W (R.M.S.)
- 2 Channel



- JC-50
- 50W (R.M.S.)
- 1 Channel

Systematized equipment and accessories

MIXING AMPLIFIERS & BOSS MIXERS

PA-250

STEREO MIXING AMPLIFIER



• Dimensions: 603(W) x 190(H) x 505(D)mm (23.7" x 7.5" x 19.9") • Weight: 20kg (44 lbs.)

PA-150

STEREO MIXING AMPLIFIER



• Dimensions: 603(W) x 190(H) x 475(D)mm (23.7" x 7.5" x 18.7") • Weight: 16kg (35.2 lbs.)

PA-80

STEREO MIXING AMPLIFIER



• Dimensions: 473(W) x 175(H) x 415(D)mm (18.6" x 6.9" x 16.3") • Weight: 12kg (26.4 lbs.)

KM-60

MIXER

• Dimensions: 480(W) x 95(H) x 273(D)mm (18.9" x 3.7" x 10.8") • Weight: 4.7kg (10.4 lbs.)



KM-600

KEYBOARD MIXER

• Dimensions: 310(W) x 70(H) x 165(D)mm (12.2" x 2.8" x 6.5") • Weight: 2.2kg (4.84 lbs.)



KM-400

KEYBOARD MIXER

• Dimensions: 220(W) x 65(H) x 150(D)mm (8.7" x 2.6" x 5.9") • Weight: 1.4kg (3.08 lbs.)



ECHO CHAMBERS

SRE-555

CHORUS ECHO



• Dimensions: 480(W) x 180(H) x 445(D)mm (18.9" x 7.1" x 17.5") • Weight: 15.7kg (34.54 lbs.)

RE-501

CHORUS ECHO



• Dimensions: 418(W) x 190(H) x 330(D)mm (16.5" x 7.5" x 13.0") • Weight: 10.5kg (23.1 lbs.)

RE-201

SPACE ECHO



• Dimensions: 415(W) x 185(H) x 275(D)mm (16.3" x 7.3" x 10.8") • Weight: 9.5kg (20.9 lbs.)

RE-150

SPACE ECHO



• Dimensions: 425(W) x 185(H) x 290(D)mm (16.7" x 7.3" x 11.4") • Weight: 8.2kg (18.0 lbs.)

DM-300

DELAY MACHINE



• Dimensions: 386(W) x 123(H) x 206(D)mm (15.2" x 4.9" x 8.1") • Weight: 3.7kg (8.2 lbs.)

DM-100

DELAY MACHINE



• Dimensions: 340(W) x 95(H) x 165(D)mm (13.4" x 3.7" x 6.5") • Weight: 2.6kg (5.8 lbs.)

RX-100

REVERB ADD



• Dimensions: 340(W) x 95(H) x 165(D)mm (13.4" x 3.7" x 6.5") • Weight: 2.6kg (5.7 lbs.)

KEYBOARD VOLUME

FV-200

KEYBOARD VOLUME

• Dimensions: 110(W) x 65(H) x 324(D)mm (4.3" x 2.6" x 12.8") • Weight: 1kg (2.2 lbs.)



MS-100

MONITOR SPEAKER



• Dimensions: 300(W) x 167(H) x 162(D)mm (11.8" x 6.6" x 6.4") • Weight: 3.5kg (7.7 lbs.)

Systematized equipment and accessories

KEYBOARD STANDS & ACCESSORIES

KS-1



Applicable Keyboards
ORGAN STRINGS RS-09

KS-10



Applicable Keyboards
ORGAN VK-09

KS-2



Applicable Keyboards
PIANO HP-70, HP-60
HP-30, EP-11
EP-6060

KS-20



Applicable Keyboards
SYNTHESIZER
JUPITER-8 & JUPITER-6 KSA-20: Metal
Adaptor to KS-20 for JUPITER-8

KS-50 Display Stand

- Display stand for keyboards. Makes maximum use of available floor space.
- Capable of displaying five small keyboards, such as the 09 series.
- Also capable of holding one large keyboard, such as Jupiter-8.
- Five pairs of arms provided.
- Dimensions: 490 (W) x 1820 (H) x 500 (D) mm (19.3" x 71.7" x 19.7")



STEREO HEADPHONES

H-10



Ideal for monitoring.

BATTERIES

BR-2

(UM-2 x 2)



UM-2 Dry cell batteries

PEDAL SWITCHES

DP-6



Used for combo synthesizers and pianos.

FOOT SWITCHES

FS-1



ON/OFF foot switch.

FS-2



ON/OFF control of two functions.

FS-3



ON/OFF control of three functions.

For PIANO PLUS 70 [HP-70], PIANO PLUS 60 [HP-60]

CARRYING CASES

CB series (Leatherette Case)



Case No.	Keyboard
CB-09	RS-09
CB-JUNO	JUNO-60/6

SC series (Soft Case)



Case No.	Keyboard
SC-1	CSQ-100
SC-2	RS-09
SC-4	CSQ-600
SC-09	RS-09
SC-60	EP-11/11W, HP-60/30, EP-6060
SC-70	HP-70
SC-101	SH-101

TB series (Aluminum Case)



Case No.	Keyboard/Rack Mount
TB-8	JUPITER-8/6
TB-2U	The Roland Rack
TB-7U	
TB-12U	

PCS CORDS CONNECTION CORDS



Mini Plug ↔ Phone Plug
PSC-4 1.6m x 2 Green x 1
Brown x 1



Phone Plug ↔ Phone Plug
PCS-5 40cm x 2 Grey/Green
PCS-6 75cm x 2 Grey/Green
PCS-7 1.5m x 2 Brown/Green



Mini Plug ↔ Mini Plug
PCS-10 20cm x 2 Black/Red
40cm x 4 Black x 2/Red x 2
60cm x 2 Gray x 2
PCS-14 1m x 3 Gray/Black/Red

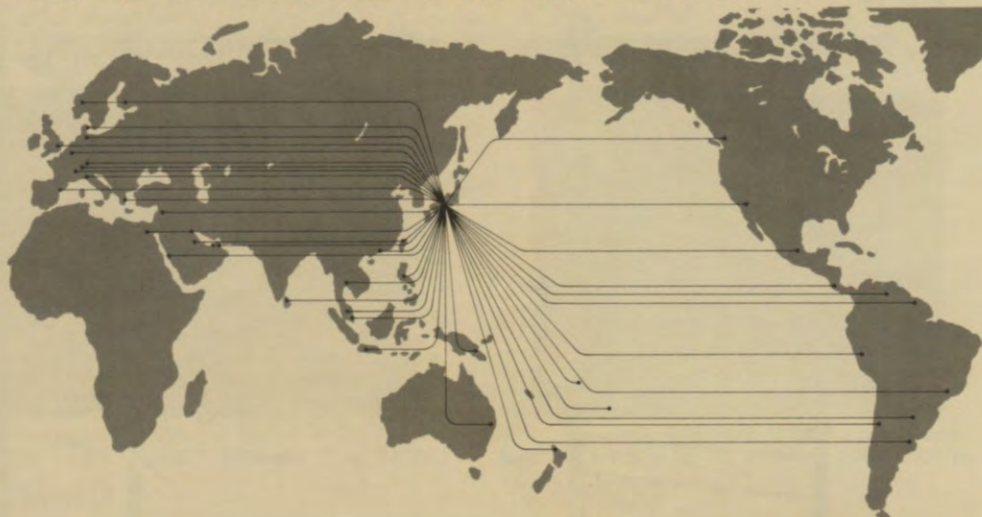


5PIN DIN Cord
PCS-17 1.4m x 1 Black



Phone Plug ↔ Pin Plug + Phone Plug
2.5m x 1 Black

THE WORLD-WIDE NETWORK OF DISTRIBUTION



U.S.A.	Roland Corp US Tel. (213) 685-5141	2401 Saybrook Avenue Los Angeles, CA90040 U.S.A.	Venezuela	Musiyama C.A. Tel. 38 71 06	Calle 3B, Sector 2 Edificio Musiyama-Yamaha La Urbina, Apartado 75892 Caracas 1070, Venezuela
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			Tahiti	Pedron Music House Tel. W/37189 H/24743	B.P. 2725 Papeete, Tahiti
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			Korea	Cosmos Musical Instruments Co. Tel. 720-8833, 724-8888	Rm. 261, 2nd Fl. Nakwon Bldg. Chongro-2KA, Chongro-Ku Seoul, Korea